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**Exhibit R-2, RDT&E Budget Item Justification:** PB 2013 Air Force **DATE:** February 2012

<b>APPROPRIATION/BUDGET ACTIVITY</b> 3600: <i>Research, Development, Test &amp; Evaluation, Air Force</i> BA 7: <i>Operational Systems Development</i>	<b>R-1 ITEM NOMENCLATURE</b> PE 0303131F: <i>Minimum Essential Emergency Communications Network (MEECN)</i>
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COST (\$ in Millions)	FY 2011	FY 2012	FY 2013 Base	FY 2013 OCO	FY 2013 Total	FY 2014	FY 2015	FY 2016	FY 2017	Cost To Complete	Total Cost
Total Program Element	67.912	43.360	20.124	-	20.124	39.673	53.390	50.577	17.364	Continuing	Continuing
672832: <i>MEECN System Improvements</i>	1.086	0.786	0.825	-	0.825	0.873	1.102	1.195	1.167	Continuing	Continuing
674610: <i>Minuteman MEECN Program (MMP)</i>	22.016	10.465	-	-	-	-	-	-	-	Continuing	Continuing
675047: <i>Ground Element MEECN System (GEMS)</i>	44.810	14.491	-	-	-	-	-	-	-	Continuing	Continuing
675378: <i>Long Term Solution</i>	-	17.618	-	-	-	-	-	-	-	Continuing	Continuing
676029: <i>Global Aircrew Strategic Network Terminal</i>	-	-	19.299	-	19.299	38.800	52.288	49.382	16.197	Continuing	Continuing

**Note**

Project 675047, Ground Element MEECN System (GEMS) contract was terminated for convenience in Jun 2011. FY12 funding will be realigned to Project 676029, Global Aircrew Strategic Network Terminal (Global ASNT) which will provide Nuclear Command and Control connectivity to bombers, tankers, and reconnaissance wing command posts and mobile relocation teams.

Nuclear Command, Control, and Communications (NC3) Long Term Solution (LTS) was a FY12 New Start, but was cancelled during FY13 budget development due to higher Air Force priorities.

**A. Mission Description and Budget Item Justification**

Nuclear Deterrence Operations (NDO) is an Air Force Core Function. Within this core function, Nuclear Command and Control (NC2) is the exercise of authority and direction by the President, as Commander in Chief, through established command lines, over nuclear weapon operations of military forces. The President's authority and direction are exercised through the Nuclear Command and Control System (NCCS). The NCCS is the designated combination of flexible and enduring elements including facilities, equipment, communications, procedures, personnel, and the structure in which these elements are integrated, all of which are essential for planning, directing, and controlling nuclear weapon operations.

The Minimum Essential Emergency Communications Network (MEECN) portfolio modernizes the systems necessary to effectively provide assured communications connectivity between the President and the strategic deterrence forces in stressed environments. There are several on-going MEECN activities working to modernize strategic forces' communication networks.

MEECN System Improvements (MSI) is a long-range planning process with users (Air Force Global Strike Command (AFGSC), Air Combat Command (ACC), Air Force Space Command (AFSPC), Air Mobility Command (AMC), US Strategic Command (USSTRATCOM), and the Navy) to develop positions for current and future

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<b>APPROPRIATION/BUDGET ACTIVITY</b> 3600: <i>Research, Development, Test &amp; Evaluation, Air Force</i> BA 7: <i>Operational Systems Development</i>	<b>R-1 ITEM NOMENCLATURE</b> PE 0303131F: <i>Minimum Essential Emergency Communications Network (MEECN)</i>
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requirements/issues based on available technology. MSI is used to conduct technology testing, develop technology strategies and build technology roadmaps as pro-active support to the Nuclear Command, Control, and Communications (NC3) community.

The Minuteman Minimum Essential Emergency Communications Network (MEECN) Program Upgrade (MMPU) modernizes existing Minuteman Intercontinental Ballistic Missile (ICBM) Launch Control Center (LCC) Extremely High Frequency (EHF) communications to provide an Advanced EHF (AEHF) capability and a capability for Missile Combat Crew Members to have operator control of the terminal in the LCC to switch rapidly among various satellite constellations. This upgrade will be compatible with AEHF satellite and the supporting key management infrastructure (crypto interoperability). AEHF is an Extended Data Rate (XDR) waveform that provides more secure transmit/receive at higher data rate frequencies than the low data rate frequencies currently used on MILSTAR satellites. The AEHF terminal will provide both receive and report-back capability. These modifications comply with USSTRATCOM requirement for strategic terminals to communicate at higher data rates.

Ground Element MEECN System (GEMS) contract was terminated for convenience by the government on 16 Jun 2011. Program has been replaced by Global ASNT.

Nuclear Command, Control, and Communications (NC3) Long Term Solution (LTS) was a FY12 New Start, but was cancelled during the FY13 budget development due to higher Air Force priorities.

Global Aircrew Strategic Network Terminal (Global ASNT) provides secure, survivable inter-site, intra-site, and mobile VLF and Advanced EHF communication to bomber, tanker, reconnaissance units and mobile support teams with strategic responsibilities.

This program is in Budget Activity 07, Operational System Development, because this budget activity includes development efforts to upgrade systems that have been fielded or have received approval for full rate production and anticipate production funding in the current or subsequent fiscal year.

<b>B. Program Change Summary (\$ in Millions)</b>	<b>FY 2011</b>	<b>FY 2012</b>	<b>FY 2013 Base</b>	<b>FY 2013 OCO</b>	<b>FY 2013 Total</b>
Previous President's Budget	78.784	43.811	19.787	-	19.787
Current President's Budget	67.912	43.360	20.124	-	20.124
Total Adjustments	-10.872	-0.451	0.337	-	0.337
• Congressional General Reductions	-	-			
• Congressional Directed Reductions	-	-			
• Congressional Rescissions	-	-			
• Congressional Adds	-	-			
• Congressional Directed Transfers	-	-			
• Reprogrammings	1.500	-			
• SBIR/STTR Transfer	-1.926	-			
• Other Adjustments	-10.446	-0.451	0.337	-	0.337

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**Change Summary Explanation**

In FY2013, an additional \$13.2M was added to Global ASNT to support the new acquisition strategy following the termination of GEMS program; and \$12.9M was reduced from LTS for program cancellation.

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<b>Exhibit R-2A, RDT&amp;E Project Justification:</b> PB 2013 Air Force								<b>DATE:</b> February 2012			
<b>APPROPRIATION/BUDGET ACTIVITY</b> 3600: <i>Research, Development, Test &amp; Evaluation, Air Force</i> BA 7: <i>Operational Systems Development</i>				<b>R-1 ITEM NOMENCLATURE</b> PE 0303131F: <i>Minimum Essential Emergency Communications Network (MEECN)</i>				<b>PROJECT</b> 672832: <i>MEECN System Improvements</i>			
<b>COST (\$ in Millions)</b>	<b>FY 2011</b>	<b>FY 2012</b>	<b>FY 2013 Base</b>	<b>FY 2013 OCO</b>	<b>FY 2013 Total</b>	<b>FY 2014</b>	<b>FY 2015</b>	<b>FY 2016</b>	<b>FY 2017</b>	<b>Cost To Complete</b>	<b>Total Cost</b>
672832: <i>MEECN System Improvements</i>	1.086	0.786	0.825	-	0.825	0.873	1.102	1.195	1.167	Continuing	Continuing
Quantity of RDT&E Articles	0	0	0	0	0	0	0	0	0		

**A. Mission Description and Budget Item Justification**

MEECN System Improvements (MSI) is a long-range planning process with users (Air Force Global Strike Command (AFGSC), Air Combat Command (ACC), Air Force Space Command (AFSPC), Air Mobility Command (AMC), US Strategic Command (USSTRATCOM), and the Navy) to develop positions for current and future requirements/issues based on available technology. MSI is used to conduct technology testing, develop technology strategies, and build technology roadmaps as proactive support to the Nuclear and National C2 community.

Very Low Frequency/Low Frequency (VLF/LF) receivers are currently used as one of the means for secure/survivable connectivity from the President to strategic forces. Over the years, the AF and Navy have pursued their own VLF products, which meet the unique application and environmental situations for each platform. MSI is investigating technical feasibility of a future common core of processing hardware and software that supports all VLF receiver platforms. MSI will develop the technology of a Uniform MEECN Mode (UMM) which will result in a common set of waveform software.

This program is in Budget Activity 07, Operational System Development, because this budget activity includes development efforts to upgrade systems that have been fielded or have received approval for full rate production and anticipate production funding in the current or subsequent fiscal year.

**B. Accomplishments/Planned Programs (\$ in Millions)**

	<b>FY 2011</b>	<b>FY 2012</b>	<b>FY 2013</b>
<b>Title:</b> MEECN System Improvements	1.086	0.786	0.825
<b>Description:</b> Conduct NC2 technology testing, developing comprehensive technology strategies and building technology roadmaps. Conduct VLF/LF tradeoff analysis.			
<b>FY 2011 Accomplishments:</b> Develop NC2 Architecture Roadmap; conduct Common VLF Receiver Trade-off Analysis			
<b>FY 2012 Plans:</b> Develop NC2 Architecture Roadmap. Continue Common VLF Receiver Trade-off Analysis			
<b>FY 2013 Plans:</b> Develop NC2 Architecture Roadmap.			

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<b>Exhibit R-2A, RDT&amp;E Project Justification:</b> PB 2013 Air Force	<b>DATE:</b> February 2012
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<b>APPROPRIATION/BUDGET ACTIVITY</b> 3600: <i>Research, Development, Test &amp; Evaluation, Air Force</i> BA 7: <i>Operational Systems Development</i>	<b>R-1 ITEM NOMENCLATURE</b> PE 0303131F: <i>Minimum Essential Emergency Communications Network (MEECN)</i>	<b>PROJECT</b> 672832: <i>MEECN System Improvements</i>
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<b>B. Accomplishments/Planned Programs (\$ in Millions)</b>	<b>FY 2011</b>	<b>FY 2012</b>	<b>FY 2013</b>
Continue Common VLF Receiver Trade-off Analysis.			
<b>Accomplishments/Planned Programs Subtotals</b>	1.086	0.786	0.825

<b>C. Other Program Funding Summary (\$ in Millions)</b>											
<b>Line Item</b>	<b>FY 2011</b>	<b>FY 2012</b>	<b>FY 2013</b>	<b>FY 2013</b>	<b>FY 2013</b>	<b>FY 2014</b>	<b>FY 2015</b>	<b>FY 2016</b>	<b>FY 2017</b>	<b>Cost To Complete</b>	<b>Total Cost</b>
• N/A: <i>None</i>	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	Continuing	Continuing

**D. Acquisition Strategy**  
Johns Hopkins University (JHU) Applied Physics Lab (APL) is on contract to provide updates to the NC2 Roadmap.

**E. Performance Metrics**  
Please refer to the Performance Base Budget Overview Book for information on how Air Force resources are applied and how those resources are contributing to Air Force performance goals and most importantly, how they contribute to our mission.

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<b>Exhibit R-4, RDT&amp;E Schedule Profile:</b> PB 2013 Air Force		<b>DATE:</b> February 2012
<b>APPROPRIATION/BUDGET ACTIVITY</b> 3600: <i>Research, Development, Test &amp; Evaluation, Air Force</i> BA 7: <i>Operational Systems Development</i>	<b>R-1 ITEM NOMENCLATURE</b> PE 0303131F: <i>Minimum Essential Emergency Communications Network (MEECN)</i>	<b>PROJECT</b> 672832: <i>MEECN System Improvements</i>

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<b>Exhibit R-4A, RDT&amp;E Schedule Details:</b> PB 2013 Air Force		<b>DATE:</b> February 2012
<b>APPROPRIATION/BUDGET ACTIVITY</b> 3600: <i>Research, Development, Test &amp; Evaluation, Air Force</i> BA 7: <i>Operational Systems Development</i>	<b>R-1 ITEM NOMENCLATURE</b> PE 0303131F: <i>Minimum Essential Emergency Communications Network (MEECN)</i>	<b>PROJECT</b> 672832: <i>MEECN System Improvements</i>

Schedule Details

Events	Start		End	
	Quarter	Year	Quarter	Year
NC2 Roadmap Debriefs	2	2013	2	2013

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<b>Exhibit R-2A, RDT&amp;E Project Justification:</b> PB 2013 Air Force									<b>DATE:</b> February 2012		
<b>APPROPRIATION/BUDGET ACTIVITY</b> 3600: <i>Research, Development, Test &amp; Evaluation, Air Force</i> BA 7: <i>Operational Systems Development</i>				<b>R-1 ITEM NOMENCLATURE</b> PE 0303131F: <i>Minimum Essential Emergency Communications Network (MEECN)</i>				<b>PROJECT</b> 674610: <i>Minuteman MEECN Program (MMP)</i>			
<b>COST (\$ in Millions)</b>	<b>FY 2011</b>	<b>FY 2012</b>	<b>FY 2013 Base</b>	<b>FY 2013 OCO</b>	<b>FY 2013 Total</b>	<b>FY 2014</b>	<b>FY 2015</b>	<b>FY 2016</b>	<b>FY 2017</b>	<b>Cost To Complete</b>	<b>Total Cost</b>
674610: <i>Minuteman MEECN Program (MMP)</i>	22.016	10.465	-	-	-	-	-	-	-	Continuing	Continuing
Quantity of RDT&E Articles	0	0	0	0	0	0	0	0	0		

**Note**

Seven (7) RDT&E Engineering Development Models (EDMs) were bought with RDT&E funding. After the development effort, those articles will be refurbished using RDT&E funding, and installed at a later date using procurement funding.

**A. Mission Description and Budget Item Justification**

The Minuteman Minimum Essential Emergency Communications Network (MEECN) Program Upgrade (MMPU) modernizes existing Minuteman Intercontinental Ballistic Missile (ICBM) Launch Control Center (LCC) Extremely High Frequency (EHF) communications to provide an Advanced EHF (AEHF) capability and a capability for Missile Combat Crew Members to have operator control of the terminal in the LCC to switch rapidly among various satellite constellations. This upgrade will be compatible with AEHF satellite and the supporting key management infrastructure (crypto interoperability). AEHF is an Extended Data Rate (XDR) waveform that provides more secure transmit/receive at higher data rate frequencies than the low data rate frequencies currently used on MILSTAR satellites. The AEHF terminal will provide both receive and report-back capability. These modifications comply with USSTRATCOM requirement for strategic terminals to communicate at higher data rates.

This program is in Budget Activity 07, Operational System Development, because this budget activity includes development efforts to upgrade systems that have been fielded or have received approval for full rate production and antipcate production funding in the current or subsequent fiscal year.

**B. Accomplishments/Planned Programs (\$ in Millions)**

	<b>FY 2011</b>	<b>FY 2012</b>	<b>FY 2013</b>
<b>Title:</b> MMP Upgrade Engineering and Manufacturing Development	22.016	10.465	-
<b>Description:</b> MMP Upgrade Engineering and Manufacturing Development			
<b>FY 2011 Accomplishments:</b> Continue EMD phase and conduct weapon system testing (WST) and operational testing (OT) with on-orbit MILSTAR LDR satellite. Also continue AEHF development testing and conduct AEHF on-orbit XDR testing to verify interoperability with AEHF satellite and supporting communications/cryptographic infrastructure in preparation for combined MILSTAR LDR/AEHF XDR on-orbit Weapon System Teat (WST) and Operational Assessment (OA).			
<b>FY 2012 Plans:</b>			

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<b>Exhibit R-2A, RDT&amp;E Project Justification:</b> PB 2013 Air Force	<b>DATE:</b> February 2012
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<b>APPROPRIATION/BUDGET ACTIVITY</b> 3600: <i>Research, Development, Test &amp; Evaluation, Air Force</i> BA 7: <i>Operational Systems Development</i>	<b>R-1 ITEM NOMENCLATURE</b> PE 0303131F: <i>Minimum Essential Emergency Communications Network (MEECN)</i>	<b>PROJECT</b> 674610: <i>Minuteman MEECN Program (MMP)</i>
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<b>B. Accomplishments/Planned Programs (\$ in Millions)</b>	FY 2011	FY 2012	FY 2013
Complete integration and test with MILSTAR LDR. Complete AEHF XDR satellites and supporting communications/cryptographic infrastructure WST and OA.			
<b>Accomplishments/Planned Programs Subtotals</b>	22.016	10.465	-

**C. Other Program Funding Summary (\$ in Millions)**

Line Item	FY 2011	FY 2012	FY 2013 Base	FY 2013 OCO	FY 2013 Total	FY 2014	FY 2015	FY 2016	FY 2017	Cost To Complete	Total Cost
• P-9: <i>MPAF, PE 0303131F, MEECN</i>	9.746	40.991	6.325	0.000	6.325	19.049	3.000	0.000	0.000	Continuing	Continuing

**D. Acquisition Strategy**

The ICBM Prime Integrating Contract (IPIC), through OO-ALC, Hill AFB, UT, was used as a contracting vehicle for the legacy Minuteman MEECN Program (MMP) and the contractor will continue to serve in an advisory role for integration support for the MMPU program. Due to the end of IPIC on 30 Sep 2012, MMPU deployment and sustainment will transition to Communications Installation Sustainment and Support Contract (CISSC) bridge contract in FY 13.

Two Concept and Technology Demonstration (C&TD) contracts were awarded to separate vendors following full and open competition. The MMPU EMD effort was a full and open competition and was awarded to Raytheon Company, Marlborough, MA on 15 Jan 08.

**E. Performance Metrics**

Please refer to the Performance Base Budget Overview Book for information on how Air Force resources are applied and how those resources are contributing to Air Force performance goals and most importantly, how they contribute to our mission.

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<b>Exhibit R-4, RDT&amp;E Schedule Profile:</b> PB 2013 Air Force		<b>DATE:</b> February 2012
<b>APPROPRIATION/BUDGET ACTIVITY</b> 3600: <i>Research, Development, Test &amp; Evaluation, Air Force</i> BA 7: <i>Operational Systems Development</i>	<b>R-1 ITEM NOMENCLATURE</b> PE 0303131F: <i>Minimum Essential Emergency Communications Network (MEECN)</i>	<b>PROJECT</b> 674610: <i>Minuteman MEECN Program (MMP)</i>

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<b>Exhibit R-4A, RDT&amp;E Schedule Details:</b> PB 2013 Air Force		<b>DATE:</b> February 2012
<b>APPROPRIATION/BUDGET ACTIVITY</b> 3600: <i>Research, Development, Test &amp; Evaluation, Air Force</i> BA 7: <i>Operational Systems Development</i>	<b>R-1 ITEM NOMENCLATURE</b> PE 0303131F: <i>Minimum Essential Emergency Communications Network (MEECN)</i>	<b>PROJECT</b> 674610: <i>Minuteman MEECN Program (MMP)</i>

Schedule Details

Events	Start		End	
	Quarter	Year	Quarter	Year
Integration and Test	2	2011	4	2013
Milestone C	4	2011	4	2011
Initial Operational Capability	3	2013	3	2013
Full Operational Capability	1	2015	1	2015

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<b>APPROPRIATION/BUDGET ACTIVITY</b> 3600: <i>Research, Development, Test &amp; Evaluation, Air Force</i> BA 7: <i>Operational Systems Development</i>	<b>R-1 ITEM NOMENCLATURE</b> PE 0303131F: <i>Minimum Essential Emergency Communications Network (MEECN)</i>	<b>PROJECT</b> 675047: <i>Ground Element MEECN System (GEMS)</i>
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COST (\$ in Millions)	FY 2011	FY 2012	FY 2013 Base	FY 2013 OCO	FY 2013 Total	FY 2014	FY 2015	FY 2016	FY 2017	Cost To Complete	Total Cost
675047: <i>Ground Element MEECN System (GEMS)</i>	44.810	14.491	-	-	-	-	-	-	-	Continuing	Continuing
Quantity of RDT&E Articles	0	0	0	0	0	0	0	0	0		

**Note**

Ground Element MEECN System (GEMS) contract was terminated for convenience on 16 Jun 2011. Funding will be used for execution of the Global Aircrew Strategic Network Terminal (Global ASNT) program. Global ASNT continues in BPAC 676029 beginning in FY13. Remaining FY11 funding required for GEMS termination costs.

**A. Mission Description and Budget Item Justification**

Ground Element MEECN System (GEMS) contract was terminated for convenience on 16 Jun 2011. Funding will be used for execution of the Global Aircrew Strategic Network Terminal (Global ASNT) program. Global ASNT continues in BPAC 676029 beginning in FY13.

**B. Accomplishments/Planned Programs (\$ in Millions)**

	FY 2011	FY 2012	FY 2013
<b>Title:</b> Engineering and Manufacturing Development	44.810	14.491	-
<b>Description:</b> Engineering and Manufacturing Development			
<b>FY 2011 Accomplishments:</b> Engineering and Manufacturing Development to include: EHF, VLF, HF and UHF integration of modem design, cryptographic upgrade, software development, antenna integration and pager/klaxon development. GEMS contract was terminated for convenience on 16 Jun 2011. Begin transition from terminated GEMS program to begin incremental development efforts under Global ASNT program.			
<b>FY 2012 Plans:</b> Transition from terminated GEMS program to begin incremental development efforts under Global ASNT program. Global ASNT continues in BPAC 676029.			
<b>Accomplishments/Planned Programs Subtotals</b>	44.810	14.491	-

**C. Other Program Funding Summary (\$ in Millions)**

Line Item	FY 2011	FY 2012	FY 2013 Base	FY 2013 OCO	FY 2013 Total	FY 2014	FY 2015	FY 2016	FY 2017	Cost To Complete	Total Cost
• N/A: None	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	Continuing	Continuing

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**D. Acquisition Strategy**

In Phase I, the Government awarded two contracts for the GEMS Concept and Technology Demonstration (C&TD) study, each of which had a 7-month period of performance. In Phase II, the Government made one contract award through a full and open competition for System Design Demonstration (SDD) and subsequent GEMS production and installation. Rockwell Collins of Cedar Rapids, IA was awarded the Cost Plus Award Fee (CPAF) Engineering Manufacturing and Development (EMD) and production contract on 23 June 2005. The GEMS contract was terminated for convenience on 16 Jun 2011.

**E. Performance Metrics**

Please refer to the Performance Base Budget Overview Book for information on how Air Force resources are applied and how those resources are contributing to Air Force performance goals and most importantly, how they contribute to our mission.

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Schedule Details

Events	Start		End	
	Quarter	Year	Quarter	Year
GEMS contract terminated for convenience	3	2011	3	2011

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**Exhibit R-2A, RDT&E Project Justification:** PB 2013 Air Force **DATE:** February 2012

<b>APPROPRIATION/BUDGET ACTIVITY</b> 3600: <i>Research, Development, Test &amp; Evaluation, Air Force</i> BA 7: <i>Operational Systems Development</i>	<b>R-1 ITEM NOMENCLATURE</b> PE 0303131F: <i>Minimum Essential Emergency Communications Network (MEECN)</i>	<b>PROJECT</b> 675378: <i>Long Term Solution</i>
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COST (\$ in Millions)	FY 2011	FY 2012	FY 2013 Base	FY 2013 OCO	FY 2013 Total	FY 2014	FY 2015	FY 2016	FY 2017	Cost To Complete	Total Cost
675378: <i>Long Term Solution</i>	-	17.618	-	-	-	-	-	-	-	Continuing	Continuing
Quantity of RDT&E Articles	0	0	0	0	0	0	0	0	0		

**Note**  
Nuclear Command, Control, and Communications (NC3) Long Term Solution (LTS) was a FY12 New Start, but was cancelled due to higher Air Force priorities.

**A. Mission Description and Budget Item Justification**  
Nuclear Command, Control and Communications (NC3) LTS will replace the current NC3 Hybrid Solution which consists of Navy's Nova system and Air Forces's Strategic Authomated Command and Control System (SACCS), and will provide a worldwide, robust, non-survivable NC3 network for specialized messaging services to meet Nuclear Technical Performance Criteria (NTPC) requirements for Emergency Action Message (EAM) dissemination. The mission of the NC3 message service is to provide accurate and reliable delivery of time-critical messages from the Executing Command Authority to nuclear forces and other authorized subscribers. NC3 LTS provides NC3 messaging sevices to the JS-approved NC2 subscribers and critical interfaces (~350). NC3 LTS will upgrade the current messaging service to Internet Protocol (IP) based service.

This program is in Budget Activity 07, Operational System Development, because this budget activity includes development efforts to upgrade systems that have been fielded or have received approval for full rate production and anticipate production funding in the current or subsequent fiscal year.

Nuclear Command, Control, and Communications (NC3) Long Term Solution (LTS) was a FY12 New Start, but was cancelled due to higher Air Force priorities.

<b>B. Accomplishments/Planned Programs (\$ in Millions)</b>	FY 2011	FY 2012	FY 2013
<b>Title:</b> Engineering and Manufacturing Development	-	17.618	-
<b>Description:</b> Design & develop IP based NC3 communications network			
<b>FY 2011 Accomplishments:</b> N/A			
<b>FY 2012 Plans:</b> Design and develop IP based NC3 communications network. Support Milestone B decision process.			
LTS program being terminated in FY13 due to higher Air Force priorities.			
<b>Accomplishments/Planned Programs Subtotals</b>	-	17.618	-

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<b>Exhibit R-2A, RDT&amp;E Project Justification:</b> PB 2013 Air Force	<b>DATE:</b> February 2012
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<b>APPROPRIATION/BUDGET ACTIVITY</b> 3600: <i>Research, Development, Test &amp; Evaluation, Air Force</i> BA 7: <i>Operational Systems Development</i>	<b>R-1 ITEM NOMENCLATURE</b> PE 0303131F: <i>Minimum Essential Emergency Communications Network (MEECN)</i>	<b>PROJECT</b> 675378: <i>Long Term Solution</i>
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**C. Other Program Funding Summary (\$ in Millions)**

<u>Line Item</u>	<u>FY 2011</u>	<u>FY 2012</u>	<u>FY 2013</u> <u>Base</u>	<u>FY 2013</u> <u>OCO</u>	<u>FY 2013</u> <u>Total</u>	<u>FY 2014</u>	<u>FY 2015</u>	<u>FY 2016</u>	<u>FY 2017</u>	<u>Cost To</u> <u>Complete</u>	<u>Total Cost</u>
• N/A: None	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	Continuing	Continuing

**D. Acquisition Strategy**

Nuclear Command, Control, and Communications (NC3) Long Term Solution (LTS) was a FY12 New Start, but was cancelled due to higher Air Force priorities.

**E. Performance Metrics**

Please refer to the Performance Base Budget Overview Book for information on how Air Force resources are applied and how those resources are contributing to Air Force performance goals and most importantly, how they contribute to our mission.

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<b>Exhibit R-4, RDT&amp;E Schedule Profile:</b> PB 2013 Air Force		<b>DATE:</b> February 2012
<b>APPROPRIATION/BUDGET ACTIVITY</b> 3600: <i>Research, Development, Test &amp; Evaluation, Air Force</i> BA 7: <i>Operational Systems Development</i>	<b>R-1 ITEM NOMENCLATURE</b> PE 0303131F: <i>Minimum Essential Emergency Communications Network (MEECN)</i>	<b>PROJECT</b> 675378: <i>Long Term Solution</i>

PE 0303131F: *Minimum Essential Emergency Communications Network...*  
Air Force

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**Exhibit R-4A, RDT&E Schedule Details:** PB 2013 Air Force **DATE:** February 2012

<b>APPROPRIATION/BUDGET ACTIVITY</b> 3600: <i>Research, Development, Test &amp; Evaluation, Air Force</i> BA 7: <i>Operational Systems Development</i>	<b>R-1 ITEM NOMENCLATURE</b> PE 0303131F: <i>Minimum Essential Emergency Communications Network (MEECN)</i>	<b>PROJECT</b> 675378: <i>Long Term Solution</i>
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Schedule Details

Events	Start		End	
	Quarter	Year	Quarter	Year
LTS Program Cancelled	4	2011	4	2011

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**Exhibit R-2A, RDT&E Project Justification:** PB 2013 Air Force **DATE:** February 2012

<b>APPROPRIATION/BUDGET ACTIVITY</b> 3600: <i>Research, Development, Test &amp; Evaluation, Air Force</i> BA 7: <i>Operational Systems Development</i>	<b>R-1 ITEM NOMENCLATURE</b> PE 0303131F: <i>Minimum Essential Emergency Communications Network (MEECN)</i>	<b>PROJECT</b> 676029: <i>Global Aircrew Strategic Network Terminal</i>
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COST (\$ in Millions)	FY 2011	FY 2012	FY 2013 Base	FY 2013 OCO	FY 2013 Total	FY 2014	FY 2015	FY 2016	FY 2017	Cost To Complete	Total Cost
676029: <i>Global Aircrew Strategic Network Terminal</i>	-	-	19.299	-	19.299	38.800	52.288	49.382	16.197	Continuing	Continuing
Quantity of RDT&E Articles	0	0	0	0	0	0	0	0	0		

**Note**

This is not an FY13 New Start. FY11 Omnibus New Start approved for Global Aircrew Strategic Network Terminal (Global ASNT). GEMS (BPAC 675047) FY11 and FY12 funds were retained for execution of the Global ASNT program.

**A. Mission Description and Budget Item Justification**

Global Aircrew Strategic Network Terminal (Global ASNT) will be comprised of Extremely High Frequency (EHF)/Advanced EHF (AEHF), Very Low Frequency (VLF)/Low Frequency (LF), High Frequency (HF), Ultra High Frequency (UHF) and the Aircrew Alerting System (AAS) components (paggers/klaxons), and will provide secure, survivable inter-site, intra-site and mobile communications to bomber, tanker and reconnaissance wing command posts and mobile relocation teams with strategic responsibilities. Global ASNT terminals will be developed and fielded to replace strategic mobile and fixed-site Single Channel Anti-jam Man-Portable (SCAMP) terminals and Aircraft Alerting Communications Electromagnetic Pulse System/Electromagnetic Pulse Hardened Dispersal Communications (AACE/EHDC) systems. Global ASNT primary mission is to provide strategic Wing Command Posts and mobile support teams survivable communication paths to receive EAMs and Force Management messages from Nuclear Command and Control (NC2) nodes and disseminate them to bomber, tanker, and reconnaissance aircrews. Global ASNT will provide solutions to existing capability shortfalls for NC2 and has significant potential to provide distributed and transportable command and control capabilities beyond the traditional NC2 mission. Global ASNT will be fielded in separate, incremental phases; the first phase fields the AEHF capability followed by the UHF/AAS capability. Global ASNT is the last line of operational communication when all other peacetime links fail.

Ground Element MEECN System (GEMS) contract was terminated for convenience on 16 June 2011. Global ASNT is not an FY13 New Start. FY11 Omnibus New Start approved for Global Aircrew Strategic Network Terminal (Global ASNT). GEMS (BPAC 675047) FY12 funds were retained for execution of the Global ASNT program.

This program is in Budget Activity 07, Operational System Development, because this budget activity includes development efforts to upgrade systems that have been fielded or have received approval for full rate production and anticipate production funding in the current or subsequent fiscal year.

**B. Accomplishments/Planned Programs (\$ in Millions)**

	FY 2011	FY 2012	FY 2013
<b>Title:</b> Technology Development	-	-	19.299
<b>Description:</b> Technology Development.			
<b>FY 2011 Accomplishments:</b>			

PE 0303131F: *Minimum Essential Emergency Communications Network...*  
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**Exhibit R-2A, RDT&E Project Justification:** PB 2013 Air Force **DATE:** February 2012

<b>APPROPRIATION/BUDGET ACTIVITY</b> 3600: <i>Research, Development, Test &amp; Evaluation, Air Force</i> BA 7: <i>Operational Systems Development</i>	<b>R-1 ITEM NOMENCLATURE</b> PE 0303131F: <i>Minimum Essential Emergency Communications Network (MEECN)</i>	<b>PROJECT</b> 676029: <i>Global Aircrew Strategic Network Terminal</i>
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<b>B. Accomplishments/Planned Programs (\$ in Millions)</b>	FY 2011	FY 2012	FY 2013
Not Applicable			
<b><i>FY 2012 Plans:</i></b> Begin Technology Development to include EHF and AEHF integration of modem design, cryptographic upgrade, software development, antenna integration and test of developed hardware and software. This is not an FY13 New Start. FY11 Omnibus New Start approved for Global Aircrew Strategic Network Terminal (Global ASNT). GEMS (BPAC 675047) FY12 funds were retained for execution of the Global ASNT program.			
<b><i>FY 2013 Plans:</i></b> Continue Technology Development to include EHF and AEHF integration of modem design, cryptographic upgrade, software development, antenna integration and test of developed hardware and software.			
<b>Accomplishments/Planned Programs Subtotals</b>	-	-	19.299

**C. Other Program Funding Summary (\$ in Millions)**

<u>Line Item</u>	<u>FY 2011</u>	<u>FY 2012</u>	<u>FY 2013</u> <u>Base</u>	<u>FY 2013</u> <u>OCO</u>	<u>FY 2013</u> <u>Total</u>	<u>FY 2014</u>	<u>FY 2015</u>	<u>FY 2016</u>	<u>FY 2017</u>	<u>Cost To</u> <u>Complete</u>	<u>Total Cost</u>
• TBD: OPAF, PE 0303131F, MEECN	0.000	0.000	0.000	0.000	0.000	0.003	42.201	99.998	110.346	Continuing	Continuing

**D. Acquisition Strategy**  
Global ASNT will be a full and open competitive source selection to award a technology development contract, for Increment One, to two sources for risk reduction leading to a down select of the best value proposal . Global ASNT will continue to use an incremental approach to fulfilling the overall requirements of the Global ASNT program.

**E. Performance Metrics**  
Please refer to the Performance Base Budget Overview Book for information on how Air Force resources are applied and how those resources are contributing to Air Force performance goals and most importantly, how they contribute to our mission.

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<b>Exhibit R-4, RDT&amp;E Schedule Profile:</b> PB 2013 Air Force		<b>DATE:</b> February 2012
<b>APPROPRIATION/BUDGET ACTIVITY</b> 3600: <i>Research, Development, Test &amp; Evaluation, Air Force</i> BA 7: <i>Operational Systems Development</i>	<b>R-1 ITEM NOMENCLATURE</b> PE 0303131F: <i>Minimum Essential Emergency Communications Network (MEECN)</i>	<b>PROJECT</b> 676029: <i>Global Aircrew Strategic Network Terminal</i>

PE 0303131F: *Minimum Essential Emergency Communications Network...*  
Air Force

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<b>Exhibit R-4A, RDT&amp;E Schedule Details:</b> PB 2013 Air Force		<b>DATE:</b> February 2012
<b>APPROPRIATION/BUDGET ACTIVITY</b> 3600: <i>Research, Development, Test &amp; Evaluation, Air Force</i> BA 7: <i>Operational Systems Development</i>	<b>R-1 ITEM NOMENCLATURE</b> PE 0303131F: <i>Minimum Essential Emergency Communications Network (MEECN)</i>	<b>PROJECT</b> 676029: <i>Global Aircrew Strategic Network Terminal</i>

Schedule Details

Events	Start		End	
	Quarter	Year	Quarter	Year
AEHF Contract Award	1	2013	1	2013
AEHF Milestone C Decision	3	2015	3	2015
UHF/AAS Contract Award	3	2015	3	2015
UHF/AAS Milestone C	4	2017	4	2017